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	h	'	"	h	'	"	h	'	"
Chorda sex digitorum	10			14	0				
Caspii prior finis				16	50		16	44	
Caspii alter finis	17	33		17	25				
Albedo in nrari Caspio	18	15							
Finis totalis	20	0		20	10		20	42	

Monsieur Gallet's Observation of the Solar Eclips on the 11th
of June, 1676.

Observatio Solaris Eclipsis Acta Avenione die 11. Junii
1676.

Ante Eclipsin.

DI E B'U S pracedentibus, locum aptissimum elegimus in quo aëre puro fruermur, videlicet Conventum RR. PP. Carmelitarum discalceatorum, qui respectu Civitatis Aven. ad ortum vergit & mœnia stringens aëre, sumo & vaporibus urbanis libero gaudet; in medio horti cameram obscuram tapetibus construximus, & in eâ instrumenta ad observationem necessaria ritè collocavimus.

Tubospicillum aptavimus lente oculari concavâ & objectivâ convexâ instructum, duplicem habens motum firmo sustentaculo, verticalem scilicet & horisontalem, affixam tabellam immobilem firmatis cochleis secum circumducens oculari vitro semper parallelam chartâ candidissimâ indutam, in qua solarem speciem, distantiâ tubospicilli determinatam descripsimus, hujus diametrum circulis concentricis in duodecim digitos divisimus, & quemlibet digitorum in partes sexagesimas.

Loco quadrantis qui pluribus indiget cautionibus & nimium obnoxius est vacillationibus, in hac præcipuè regione in qua ferè semper spirat Aquilo qui perpendiculum agit, Gnomonem ad captandas umbras Solis in partes 400. optimè divisum disposuimus ita ut liberè moveretur situm verticalem ope perpendiculi conservans. Tandem horologium rotatile minuta prima & secunda indicans motu penduli cum cycloide præparavimus.

Tempore

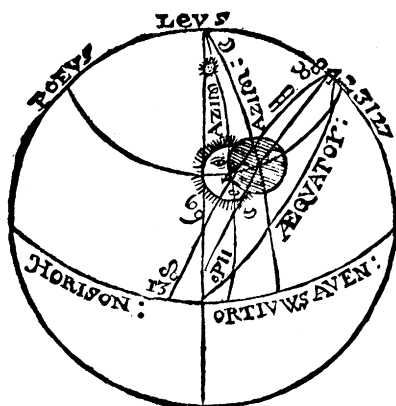
Tempore Eclipsis.

IPSA die Eclipsis undecimâ Junii horâ unâ circiter post ortum Solis, usque ad initium & finem Eclipsis, speciem ejus lucidam infra descriptam in charta, sine intermissione recepimus & quilibet ex nobis instrumento sibi destinato semper invigilavit; Dominus de Beauchamps Musarum Aveniozensium Mæcenæ amplissimus, Ego quoque cum illo, tubospicillo; Dominus de S. Florent visus perspicacissimi, Gnomoni; Dominus Moutonier horologio, unâ cum Domino Marin Presbytero in mathematicis, & præsertim horologiis versatissimo.

Statim ac sensibiliter cœpit umbra discum inire, quantitatem partium obscuratarum, umbram in partibus Gnomonis & horum horologii notavi è directo primæ phasis, & ita collegi phases 39, contentas in sequenti tabella, non emisso tempore quo fuerunt cornua Solis verticalia & parallela horizoni. & qua cornu occidentale sub eodem fuit verticali cum centro Solis.

Num.

Num. Plat.	Digni ob- scur.	Umbra Gnomon. in partibus qualium Gnomon continet	Altitudo Solis ap- parens.			Altitudo Solis vera.			Hora Horologii penduli.			Hora cor- recta per altitudinem Solis.			
			G.	M.	S.	G.	M.	S.	H.	M.	S.	H.	M.	S.	
1	0	27 561	35	29	23 35	28	48	7	50	31	7	50	34		
2	1	0 536	36	44	0 36	43	28	7	57	25	7	57	28		
3	1	30 520	37	34	7 37	33	37	8	2	38	2	57	2		
4	3	0 478	39	55	23 39	54	57	8	15	14	8	15	13		
5	3	25 466	40	38	30 40	38	68	19	08	08	19	19	14		
6	4	30 438	42	24	14 42	23	53	8	29	19	8	29	6		
7	4	40 434	42	39	58 42	39	37	8	30	59	8	30	34		
8	5	0 424	43	19	53 43	19	32	8	34	34	8	34	18		
9	5	30 412	44	9	12 44	8	52	8	39	19	8	38	56		
10	6	0 394	45	10	57 45	10	39	8	44	54	8	44	44	Cornua verti- calia.	
11	6	40 375	46	35	50 46	35	33	8	53	19	8	52	45		
12	6	50 371	46	54	15 46	54	08	54	54	54	8	54	31		
13	7	0 366	47	17	30 47	17	14	8	56	44	8	56	44		
14	7	20 350	48	30	37 48	30	23	9	3	44	9	3	44	Maxima ob- scuratio.	
15	7	8 339	49	20	10 49	28	58	9	9	14	9	9	15		
16	7	0						9	11	0					
17	6	35 321	51	39	22 50	39	10	9	15	54	9	16	12		
18	6	25 325	50	0	12 51	0	09	18	18	14	9	18	11		
19	5	25 296	53	10	29 53	10	19	9	31	9	9	31	1		
20	5	0 286	53	55	14 53	55	59	35	44	9	35	35	30		
21	4	40 283	54	27	6 54	26	57	9	38	39	9	38	43		
22	4	35						9	42	3				Cornua paral- lela Horizonti.	
23	4	0						9	47	19					
24	3	53 266	56	3	35 56	3	27	7	48	45	9	48	36		
25	3	35 262	56	28	29 56	28	22	9	51	29	9	51	11		
26	3	30 262	56	37	32 56	37	25	9	52	11	9	51	59		
27	3	26 260	56	43	34 56	43	27	9	52	34	9	52	45		
28	3	6 254	57	15	59 57	15	53	9	56	59	9	56	10		
29	3	0						9	57	40					
30	2	48 249	57	50	48 57	50	42	9	59	34	9	59	53		
31	2	35 246	58	9	32 58	9	26	10	1	34	10	1	53		
32	2	25 243	58	26	11 58	26	5	10	3	0	10	3	41		
33	2	0						10	6	46					
34	1	50 236	59	12	33 59	12	28	10	8	56	10	8	47		
35	1	0 226	60	16	59 60	16	55	10	15	51	10	16	0		
36	0	40 220	60	56	21 50	56	16	10	20	57	10	20	31		
37	0	30 217	61	16	11 61	16	6	10	22	54	10	22	50		
38	0	20 214	61	36	12 61	36	8	10	25	0	10	25	12	Cornu occi- dentale verti- cale cum cen- tro Solis.	
39	Finis.	209	62	6	23 62	6	19	10	28	41	10	28	50		



Post Eclipsin.

EX singulis umbris Gnomonis calculo trigonometrico altitudinem limbi superioris & deductâ semidiametro, centri Solis apparentem deduxi; hanc correxi cum refractionibus & parallaxibus æstivis tuæ tabulæ post novæ Ephemerides Marchionis Malvasiæ insertæ fol 173. & tandem datis altitudine centri Solis verâ declinatione, illius & elevatione poli Avenionensis, eodem calculo distantiam Solis à meridie & inde horam cognovi.

Proportio diametrorum apparuit equalis in Eclipsi 6. digitorum, tunc enim cornua Solis verticalia distabant à verticali Solis hinc inde gradibus circiter 30. Unde patet centrum Luna tunc reperiri in peripheriâ Solis & lineam diacentron esse aequalem semidiametro Solis. Verùm post medium Eclipsis mutationem aliquam in diametro umbræ deprehendimus; apparuit enim umbra paululum magis convexa & ideò semidiameter brevior, sed ferè insensibiliter.

Ex observatis figuram sequentem astronomicam descripsi pro tribus phasibus præcipuis, videlicet decimâ, quæ fuit digitorum 6. & in qua cornua Solis fuerunt verticalia; pro 14. quæ fuit maxime obscuræ, & pro 22. quæ fuit digitorum 4. min. 35. & in qua cornua Solis fuerunt parallela horisonti.

Ope figura illius astronomica, parallaxes Lunæ & illius loca vera & visa cognovi, supposito vero loco Solis & verâ latitudine Lunæ, collectis ex Rudolphinis.

Eadem pro omnibus phasibus colligere potuisssem equidem, sed nimis laboriosa tot triangulorum resolutio, & hac sufficere mihi visa sunt.

(1024)

